NPDES Permit No. IL0005037
Notice No. LRL:15102801.docx

Public Notice Beginning Date: **April 23, 2015**

Public Notice Ending Date: **May 23, 2015**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-0610

Iowa Department of Natural Resources
Environmental Services Division
NPDES Section
Henry A. Wallace Building
900 East Grand Avenue
Des Moines, Iowa 50319

Name and Address of Discharger:

Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, Illinois 60555

Name and Address of Facility:

Exelon Generation Company, LLC
Quad Cities Generating Station
22710 206th Avenue North
Cordova, Illinois 61242
(Rock Island County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES permit to discharge into the waters of the state and has prepared a draft permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. The last day comments will be received will be on the Public Notice period ending date unless a commentor demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the draft permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the permit applicant. The NPDES permit and notice number(s) must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final permit is issued. For further information, please call Leslie R. Lowry at 217/782-0610.

The applicant has filed a revocation and reissuance permit request with the Agency in accordance with 40 CFR 122.62(a)(5). This request was related to the new 316(a) alternative thermal effluent limits and by revoking and reissuing the permit will allow for an early renewal of the NPDES permit which expires on August 31, 2015.

The applicant is engaged in the operation of Quad Cities Generation Station which is an existing nuclear fueled steam electric generating facility (SIC 4911). The facility consists of two boiling water nuclear reactors, each producing 2,957 MW power for a total Station output of 5,914 MW. Quad Cities Station withdraws water from the Mississippi River for condenser cooling and various service water uses. Plant operation results in an average discharge of 1085 MGD of open cycle diffusers from outfall 001/002, 0.054 MGD of wastewater treatment plant from internal outfall B01, 0.056 MGD of radwaste treatment system blowdown from internal outfall A02 and 0.005 MGD of sanitary waste treatment plant from outfall 003.

Application is made for existing discharges which are located in Rock Island County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

Outfall	Receiving Stream	Latitude		Longitude		Stream Classification	Integrity Rating
001/002	Mississippi River	41° 43' 30"	North	90° 18' 45"	West	General Use	Not Rated
003	Mississippi River	41° 43' 26"	North	90° 18' 45"	West	General Use	Not Rated

To assist you further in identifying the location of the discharge please see the attached map.

The stream segment, M-02, receiving the discharge from outfalls 001/002 and 003 are on the draft 2014 303(d) list of impaired waters and is not a biologically significant stream on the 2008 Illinois Department of Natural Resources Publication – *Integrating Multiple Taxa in a Biological Stream Rating System*.

The following parameters have been identified as the pollutants causing impairment:

Potential Cause:	Designated Use:
Mercury and Polychlorinated Biphenyls	Fish Consumption, Aquatic Life, Public and Food Processing Water Supplies, Primary contact Recreation, Secondary Contact, and Aesthetic Quality

The discharges from the facility shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)			CONCENTRATION LIMITS mg/l		
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
Outfall 001/002:						
Flow (MGD)						
pH				6 – 9 s.u.		35 IAC 304.125
Temperature						35 IAC 302.211, 35 IAC 303.331, 35 IAC 106, and 316(a) CWA
Total Residual Chlorine / Total Residual Oxidant					0.05	40 CFR 125.3 and 35 IAC 302.208
Zinc (Total)				Monitor Only		
Outfall B01:						
Flow (MGD)						
Total Suspended Solids	19	39	35 IAC 304.124	15	30	35 IAC 304.124
Oil and Grease	19	26	40 CFR 423b(3)	15	20	40 CFR 423b(3)

	LOAD LIMITS lbs/day DAF (DMF			CONCENTRATION LIMITS mg/l		
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
Outfall: A02						
Flow (MGD)						
Total Suspended Solids				15	30	35 IAC 304.124
Oil and Grease				15	20	40 CFR 423b(3)
Boron				Monitor only		
Outfall 003:						
Flow (MGD)						
pH				6 – 9 s.u.		35 IAC 304.125
Total Residual Chlorine					0.05	40 CFR 125.3 and 35 IAC 302.208
Fecal Coliform					400/100ml	35 IAC 304.121
BOD_5	15	30	35 IAC 304.120	30	60	35 IAC 304.120
Total Suspended Solids	15	30	35 IAC 304.120	30	60	35 IAC 304.120

Load Limit Calculations:

A. Outfall B01 load limit calculations for the following pollutant parameters were based on a design maximum flow of 0.155 MGD and using the formula of maximum flow (MGD) X concentration limit (mg/l) X 8.35 = the average or maximum load limit (lbs/day): Total Suspended Solids and Oil/Grease.

B. Outfall 003 load limit calculations for the following pollutant parameters were based on a design maximum flow of 0.06 MGD and using the formula of maximum flow (MGD) X concentration limit (mg/l) X 8.34 = the average or maximum load limit (lbs/day): BOD_5 and Total Suspended Solids.

The following explain the conditions of the proposed permit:

The Special Condition clarify flow, pH, monitoring location, total residual chlorine/total residual oxidant, additives, temperature, discharge monitoring report submission, class K operator, fecal coliform, and stormwater.

The reissuance of this permit will include the continued approved usage of water treatment additives as identified in the permit application.

The facility does not have any PCB's on-site. The last identified PCB transformer was removed on April 23, 2012.

The facility conducted a demonstration pursuant to Section 316(a) of the CWA and this was approved by the Illinois Pollution Control Board in Order 14-123, dated September 18, 2014 and the previous demonstration for the Quad Cities Nuclear Power Station in accordance with Section 316(a) of the Clean Water Act was approved by IEPA by letter dated July 28, 1981 and by the Iowa Department of Natural Resources (IDNR) by letter dated May 18, 1981. In accordance with 35 Ill. Adm. Code 106.1180, the facility has demonstrated that the nature of the thermal discharge has not changed and the alternative thermal effluent limitation granted by the Board has not caused appreciable harm to a balanced, indigenous population of shellfish, fish, and wildlife in Pool 14 of the Mississippi River.

Exelon Generation, LLC demonstration for the Quad Cities Nuclear Generating Station in accordance with Section 316(b) of the Clean Water Act was approved by IEPA by letter dated July 28, 1981 and by the Iowa Department of Natural Resources by letter dated May 18, 1981. Based on available information, the Agency has determined that the operation of the cooling water intake structure meets the equivalent of Best Technology Available (BTA) in accordance with the Best Professional Judgment provisions of 40 CFR 125.3 and 40 CFR 125.90(b), based on information available at the time of permit reissuance. Special Condition 18 requires additional information to be submitted to the Agency so that the Agency can evaluate the potential impacts of the cooling water intake structure operations pursuant to 40 CFR 125.90(b).

Intake Structure Description:

The cooling water intake structure at the facility includes an intake canal that is 235 ft. long, 180 ft. wide, and 12 ft. deep. A floating debris boom is located at the entrance to the intake canal on the eastern shore of the Mississippi River. The boom extends 33 in. below the surface of the water and prevents floating debris from entering the canal. The typical water level in the canal at the intake structure is at El. 572.0 ft. (all elevations cited are Mean Sea Level).

Located at the downstream end of the intake canal is the screenhouse structure, the opening of which is 172.5 ft. wide. The screenhouse is divided into six intake bays, 3 bays per unit. At the face of each bay is a trash rack, extending from an invert at El. 552.5 ft. to the top at El. 595.0 ft., to screen out large debris. These racks consist of 5 in. by .5 in. steel bars with 2.5 in. clear spacing between the bars. Curtain walls that extend down to El. 569.0 ft. are located downstream of the trash racks. There are stoplogs between the curtain walls and the trash racks to allow dewatering and isolation of the traveling water screen for maintenance.

Downstream of the trash racks, each bay slips into two screenbays. Each screenbay is equipped with a traveling water screen to keep fish and debris out of the circulating water system. The traveling screens are 9 ft. downstream of the curtain walls and 45 ft. upstream of the circulating water pumps. Each of the twelve screens (two per intake bay) is 10 ft. wide with 3/8 in. (9.5 mm) mesh. Screens extend from the intake invert of El. 552.5 to above El. 595.

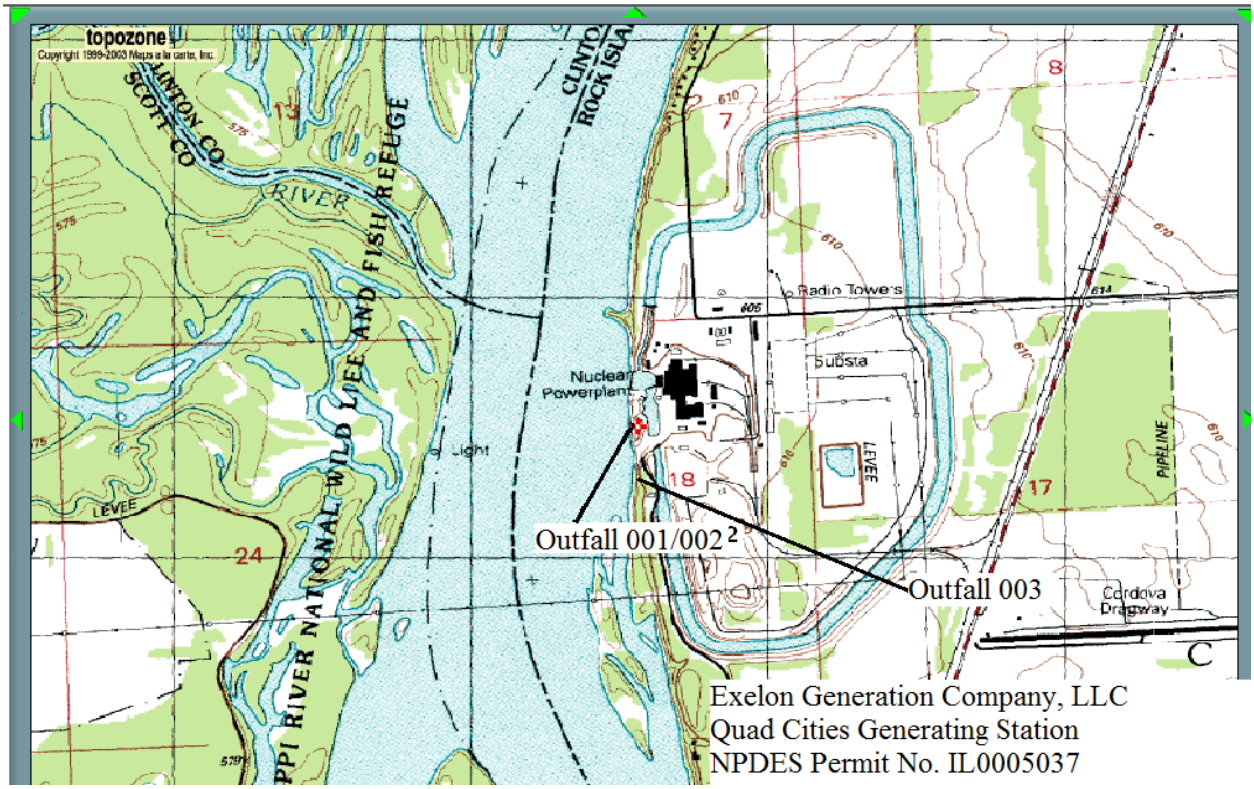
The screen can rotate at two speeds, 2.5 and 10 ft/min, and can be set to rotate manually or automatically. Under automatic operation, the screens will begin to rotate at 2.5 ft/min if a 4 in. pressure differential occurs and at 10 ft/min if a 6 in. differential occurs. When the screens are activated, the from spray wash system turns on automatically. Each screen is cleaned via a high pressure spray providing 256 gpm at 100 psi. Illinois does not allow the return of fish or collected debris back to the water body from where it is collected. Therefore, fish and debris are collected in troughs on the front of the screens and washed to a collection basket. From there, fish and debris are trucked to a landfill for disposal.

The service water pumps draw water from the six main bays, while emergency service water pumps draw from the seventh bay that draws its water from one of the Unit 1 bays and one of the Unit 2 bays.

Each circulating water pump is rated at 157,000 gpm @ 36 ft. of head and 236 rpm. With all pumps cooperating, the total flow is approximately 2253 cfs. The reported velocity at the entrance to the intake canal under plant design flow is approximately 0.9 ft/sec. The calculated velocity if 0.7 ft/sec at the trash racks, 0.8 ft/sec under the curtain wall, and 0.9 ft/sec approaching the screens.

Modification from Original Design:

Operation of the Quad Cities Station commenced in January 1972 operating in open cycle mode from January 1972 until May 1974. Beginning in May 1974, the Station operated in partial open cycle mode with one unit discharging to the spray canal as it was being constructed and the other unit discharged to the river. On May 1, 1975, the spray canal was completed and both units discharged to it (closed cycle cooling) until August 2, 1979 when the NPDES permit was modified to permit partial open cycle cooling when the intake water temperature from the canal exceeded 93°F. The Station operated in this mode until January 1984 when it was permitted to operate in open cycle mode without restrictions other than annually conducting biological monitoring and meeting thermal discharge standards applicable to this reach of the Mississippi River.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PIPELINE
Outfall 001/002
Outfall 003
Cordova Dragway
Exelon Generation Company, LLC
Quad Cities Generating Station
NPDES Permit No. IL0005037

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Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Iowa Department of Natural Resources
NPDES Section
Henry A. Wallace Building
900 East Grand Avenue
Des Moines, Iowa 50319

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

Issue Date:
Effective Date:

Name and Address of Permittee:

Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, Illinois 60555

Facility Name and Address:

Exelon Generation Company, LLC
Quad Cities Generating Station
22710 206th Avenue North
Cordova, Illinois 61242
(Rock Island County)

Discharge Number and Name:		Receiving Waters:
001/002	Open Cycle Diffusers	Mississippi River
B01	Wastewater Treatment System	
A02	Radwaste Treatment System Blowdown	
003	Sanitary Waste Treatment Plant	Mississippi River

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, the Iowa Code Section 455B.174 and rule 567-64.3 of the Iowa Administrative Code, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

Wendy Hieb
Iowa Department of Natural Resources
NPDES Section
Environmental Services Division

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NPDES Permit No. IL0005037

Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharges shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l			
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall 001/002 – Open Cycle Diffusers* (Average Flow = 1085 MGD)						
The discharge consists of: 1. Main Condenser Cooling Water 2. House Service Water 3. Radwaste Treatment System Blowdown (Outfall A02) 4. Wastewater Treatment Plant (Outfall B01) 5. House Service Water Strainer Backwash 6. Intake Screen Backwash 7. Units 1 and 2 Oil/Water Separators (stormwater) 8. Fish Culture Facilities 9. Crib House Floor Drain Sump**						
Flow (MGD)	See Special Condition 1.				Daily	24-Hour Total
pH	See Special Condition 2.				1/Month	Grab
Temperature***	See Special Condition 7.				Daily	Continuous
Total Residual Chlorine / Total Residual Oxidant	See Special Condition 4.			0.05	1/Month	Grab
Zinc (Total)****			Monitor Only		1/Quarter	Grab

* - Outfall 001/002 consists two open cycle diffusers which are side by side and discharge equally into the Mississippi River. See Special Condition 5.
** - This sub-waste stream is an alternative routing from Outfall B01. See Special Condition 17.
*** - Daily grab samples for Temperature are allowed when the Continuous Temperature Recorder is inoperable.
**** - Quarterly sampling for zinc shall only be done when using the zinc-phosphate corrosion inhibitor.

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Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharges shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l			
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall B01 – Wastewater Treatment System* (DMF = 0.155 MGD)						
The discharge consists of:** 1. Crib House Floor Drain 2. Auxiliary Boiler Blowdown 3. Roof and Floor Drains 4. Portable Demineralizer Rinse Water						
Flow (MGD)	See Special Condition 1.				1/Month	24-Hour Total
Total Suspended Solids	19	39	15	30	1/Month	8-Hour Composite
Oil and Grease	19	26	15	20	1/Month	Grab
* - Wastewater treatment system effluent is routed through an oil/water separator prior to discharge. ** - The listed contributory waste stream all pass through an oil/water separator (Units ½ oil/water separator) prior to entering the wastewater treatment plant. The crib house floor drain sump water may be discharged directly to Outfalls 001/002 as an alternative route. See Special Condition 17.						
Outfall A02 - Radwaste Treatment System Blowdown* (Average Flow = 0.056 MGD)						
The discharge consists of: 1. Laundry Wastewater 2. Floor Drains 3. Equipment Drains 4. Reactor Water 5. Filter Backwash from Reactor Cleanup 6. Filter Backwash from Condensate Demineralizers 7. Laboratory Wastewater 8. Groundwater						
Flow (MGD)	See Special Condition 1.				Daily	24-Hour Total
Total Suspended Solids			15	30	1/Month	Grab
Oil and Grease			15	20	2/Year	Grab
Boron	See Special Condition 16.		Monitor Only		1/Discharge Event**	Grab
* - The Permittee shall comply with the Nuclear Regulatory Commission, Title 10, regulations for discharge and monitoring of radioactive wastewater discharges. Wastewater is generally batch treated and recycled. Therefore the daily average discharge rate from Outfall A02 does not reflect influent flow rates. ** - When discharging sodium pentaborate.						

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Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharges shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l			
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall 003 – Sanitary Waste Treatment Plant (DMF = 0.06 MGD)						
Flow (MGD)	See Special Condition 1.				1/Month	24-Hour Total
pH	See Special Condition 2.				1/Month	Grab
Total Residual Chlorine	See Special Condition 4.			0.05	1/Month	Grab
Fecal Coliform	See Special Condition 13.			400/100ml	1/Month	Grab
BOD_5	15	30	30	60	1/Month	24-Hour Composite
Total Suspended Solids	15	30	30	60	1/Month	24-Hour Composite

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Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day (MGD) and reported as a monthly average and a daily maximum on the Discharge Monitoring Report.

SPECIAL CONDITION 2. The pH shall be in the range 6.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 4. All samples for Total Residual Chlorine shall be analyzed by an applicable method contained in 40 CFR 136, equivalent in accuracy to low-level amperometric titration or other methods found in Standard Methods for Examination of Water and Wastewater, current edition. Any analytical variability of the method used shall be considered when determining the accuracy and precision of the results.

SPECIAL CONDITION 5. Compliance with discharge limitations for Outfall 001 shall be determined by representative sampling of Outfall 002. Due to the configuration of the discharge bay, which is immediately upstream of the two open cycle diffusers, the effluent from the discharge bay flows into the two open cycle diffuser pipes, which equally release the discharge into the Mississippi River.

SPECIAL CONDITION 6. Nothing in this permit affects or abrogates the responsibilities or commitments of the Permittee herein as set forth in the agreement entered into by the Permittee in the consolidated cases of Izaak Walton League of America, et. al. v. Schlesinger, No. 2208-71 and People of the State of Illinois, et. al. v. United States Atomic Energy Commission, No. 2208-71 (U.S. District Court, District of Columbia).

SPECIAL CONDITION 7. Exelon Generation, LLC demonstration for the Quad Cities Nuclear Generating Station in accordance with Section 316(a) of the CWA was approved by the Illinois Pollution Control Board in Order 14-123, dated September 18, 2014, and the previous demonstration for the Quad Cities Nuclear Power Station in accordance with Section 316(a) of the Clean Water Act was approved by IEPA by letter dated July 28, 1981 and by the Iowa Department of Natural Resources by letter dated May 18, 1981, which resulted in the following thermal limitation.

Discharge of wastewater from this facility must not alone or in combination with other sources cause the receiving stream to violate the following thermal limitations at the edge of the mixing zone:

A. Maximum temperature rise above natural temperature must not exceed 5°F.

B. Water temperature at representative locations in the main river shall not exceed the maximum limits in the following table by 3°F for no more than 219 hours (2.5%) per calendar year, except that during July, August, and September, the temperature standards may be exceeded by up to 5°F for no more than 131.4 hours of the 219 hour annual allotment. (Main river temperatures are temperatures of those portions of the river essentially similar to and following the same thermal regime as the temperatures of the main flow of the river.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
°F	45	45	57	68	78	85	86	86	85	75	65	52

C. The area of diffusion of an effluent in the receiving water is a mixing zone, and that mixing zone shall not extend:

   i. Over more than 25 percent of the cross sectional area or volume of flow in the Mississippi River when river flow is 16,400 cubic feet per second or more, nor more than 34 percent of the cross sectional area or volume of flow in the Mississippi River when the river flow is less than 16,400 cubic feet per second.

   ii. More than 26 acres of the Mississippi River

D. The permittee must conduct a study of white crappie, black crappie, and sauger populations in Pool 14 of the Mississippi River. The permittee must conduct this study during the term of the first NPDES permit containing IPCB Order 14-123 alternative thermal effluent limitations. The results of this study must be made available to Illinois EPA and Illinois DNR when the permittee applies for renewal of this NPDES permit.

E. The permittee must assess the impact on aquatic life when the Station uses more than 219 excursion hours in any twelve-month period. The permittee must conduct this study the first time that more than 219 excursion hours are used in a twelve-month period. The results of this study must be made available to Illinois EPA and Illinois DNR when the permittee applies for renewal of its NPDES

permit.

F. The following data shall be collected and recorded:

1. Weekly determination of the river flow rate (daily when the river flows fall below 23,000 cfs).

2. Daily determination of the ambient river temperature (at or upstream of station intakes).

3. Daily recording of station discharge rate.

4. Daily continuous recording of the temperature of the station discharge.

5. Daily determination of station load.

6. As deemed necessary according to the above data, daily determination of the cross-sectional average temperature at the 500 foot downstream cross-section in the river.

G. Compliance with the thermal limitations of Special Condition 7 shall be demonstrated as follows:

1. When river flow is 21,000 cfs or greater and the ambient river temperature is 5°F or more lower than the monthly limiting temperatures, the temperature monitoring curve[1] establishes that the permittee is in compliance for all power generation levels;

2. When the river flow is less than 21,000 cfs and/or the ambient river temperature is within 5° F of the monthly limiting temperatures, the permittee shall demonstrate compliance using either:

   a. Plant load, river flow, ambient river temperature, and the temperature monitoring curve, or

   b. Field measurement[2] of the river cross-sectional average temperature taken 500 feet downstream of the diffusers.

In the event that compliance monitoring shows that the permittee has exceeded the monthly limiting temperature, the number of hours of such exceedance shall be reported on the permittee's Discharge Monitoring Report.

[1] The temperature monitoring curve identified as figure 2 in the December 2000 "Revised Temperature Monitoring Curve for Quad Cities Nuclear Generating Station".

[2] When conditions such as ice formation render the Mississippi River inaccessible to marine activity, the Permittee may demonstrate compliance with the thermal limitations of Special Condition 7 by using the most recent field measurement data collected at a river flow equal to or less than the flow for which field measurement data cannot be collected. The most recent field measurement data shall be normalized to the power production level for the day when the river was inaccessible.

SPECIAL CONDITION 8. There shall be no discharge of polychlorinated biphenyl compounds from any discharge.

SPECIAL CONDITION 9. There shall be no discharge of complexed metal bearing wastestreams and associated rinses from chemical metal cleaning, unless this permit has been modified to include the new discharge.

SPECIAL CONDITION 10. This permit authorizes the use of water treatment additives that were requested as part of this renewal. The use of any new additives, or change in those previously approved by the Agencies, or if the permittee increases the feed rate or quantity of the additives used beyond what has been approved by the Agencies, the permittee shall request a modification of this permit in accordance with the Standard Condition - Attachment H.

The permittee shall submit to the Agencies on a yearly basis a report summarizing their efforts with water treatment suppliers to find a suitable alternative to phosphorus based additives.

SPECIAL CONDITION 11. A permittee who wishes to establish the affirmative defense of upset as defined in 40 CFR 122.41(n) shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that: An upset occurred and that the permittee can identify the cause(s) of the upset; the permitted facility was at the time being properly operated; the permittee submitted notice of the upset as required in standard condition 12 of this permit; and the permittee complied with any remedial measures required in standard condition 4 of this permit.

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Special Conditions

SPECIAL CONDITION 12. Discharge is allowed from the Unit 1 oil/water separator and the Unit 2 oil/water separator in accordance with the Spill Prevention Control and Countermeasure Plan (SPCC). If an applicable effluent standard or water quality related effluent limitation is promulgated under Section 301 and 302 of the Clean Water Act (CWA) and that effluent or water quality standard or limitation is more stringent than any effluent or water quality limitations in this permit, or controls a pollutant not limited in this NPDES Permit, the Agencies shall revise or modify the permit in accordance with the promulgated standard and shall notify the permittee.

SPECIAL CONDITION 13. The daily maximum fecal coliform count shall not exceed 400 per 100 ml.

SPECIAL CONDITION 14. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, http://www.epa.state.il.us/water/net-dmr/index.html.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 28th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using NetDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 15. The Agency has determined that the effluent limitations in this permit constitute BAT/BCT for storm water which is treated in the existing treatment facilities for purposes of this permit reissuance, and no pollution prevention plan will be required for such storm water. In addition to the chemical specific monitoring required elsewhere in this permit, the permittee shall conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity, and determine whether any facility modifications have occurred which result in previously-treated storm water discharges no longer receiving treatment. If any such discharges are identified the permittee shall request a modification of this permit within 30 days after the inspection. Records of the annual inspection shall be retained by the permittee for the term of this permit and be made available to the Agency on request.

SPECIAL CONDITION 16. The permittee shall monitor for boron during periods when Sodium Pentaborate is discharged as a result of tank testing and connection drainage from components in the radwaste treatment system. The effluent boron concentration in the subject discharge shall not cause the receiving stream to exceed the water quality standards in Section 302 of 35 Ill. Adm. Code, Chapter 1, Subtitle C. This permit may be modified to include effluent limitations or requirements which are consistent with applicable laws, regulations, or judicial orders. The Agency will public notice the permit modification.

SPECIAL CONDITION 17. Crib House Floor Drain Sump shall only be routed to the Outfall 001/002 Open Cycle Diffusers during periods when increased pump seal cooling water leakage is significant enough so as to overload the wastewater treatment plant or during maintenance activities. Alternate routing of this discharge shall not take place in lieu of proper maintenance and operation of the circulating pumps.

NPDES Permit No. IL0005037

Special Conditions

SPECIAL CONDITION 18. Exelon Generation, LLC demonstration for the Quad Cities Nuclear Generating Station in accordance with Section 316(b) of the Clean Water Act was approved by IEPA by letter dated July 28, 1981 and by the Iowa Department of Natural Resources by letter dated May 18, 1981. Based on available information, the Agency has determined that the operation of the cooling water intake structure meets the equivalent of Best Technology Available (BTA) in accordance with the Best Professional Judgment provisions of 40 CFR 125.3 and 40 CFR 125.90(b), based on information available at the time of permit reissuance. Additionally, based on these conclusions the following actions by the permittee are required:

A. The permittee shall monitor fish impingement once per week, year round. Each year's data shall be tabulated and compared to historical fish impingement data for the same period with the results submitted to IEPA Compliance Assurance Section and Iowa Department of Natural Resources by July 28, each year.

Iowa Department of Natural Resources
Attn. Fisheries Management Biologist
Bellevue Research Station
24143 Highway 52
Bellevue, Iowa 52031

However, the Permittee shall comply with the requirements of the Cooling Water Intake Structure Existing Facilities Rule as found at 40 CFR 122 and 125. Any application materials and submissions required for compliance with the Existing Facilities Rule, shall be submitted to the Agency no later than 4 years from the effective date of this permit.

If for any reason, the Cooling Water Intake Structure Existing Facilities Rule is stayed or remanded by the courts, the Permittee shall comply with the requirements below. The information required below is necessary to further evaluate cooling water intake structure operations based on the most up to date information, in accordance with the Best Professional Judgment provisions of 40 CFR 125.3 and 40 CFR 125.90(b), in existence prior to the effective date of the new Existing Facilities Rule:

A. The permittee shall submit the following information/studies within 4 years of the effective date of the permit:

1. Source Water Physical Data to include:

   a. A narrative description and scaled drawings showing the physical configuration of all source water bodies used by the facility including aerial dimensions, depths, salinity and temperature regimes;

   b. Identification and characterization of the source waterbody's hydrological and geomorphological features, as well as the methods used to conduct any physical studies to determine the intake's area of influence and the results of such studies; and

   c. Location maps.

2. Source Waterbody Flow Information

   The permittee shall provide the annual mean flow of the waterbody, any supporting documentation and engineering calculations to support the analysis of whether the design intake flow is greater than five percent of the mean annual flow of the river or stream for purposes of determining applicable performance standards. Representative historical data (from a period of time up to 10 years) shall be used, if available.

3. Impingement Mortality and Entrainment Characterization Study

   The permittee shall submit an Impingement Mortality and Entrainment Characterization Study whose purpose is to provide information to support the development of a calculation baseline for evaluating impingement mortality and entrainment and to characterize current impingement mortality and entrainment. The Study shall include the following in sufficient detail to support establishment of baseline conditions:

   a. Taxonomic identification of all life stages of fish and shellfish and any species protected under Federal, State, or Tribal law (including threatened or endangered species) that are in the vicinity of the cooling water intake structure(s) and are susceptible to impingement and entrainment;

   b. A characterization of all life stages of fish and shellfish, and any species protected under Federal, or State law, including a description of the abundance and temporal and spatial characteristics in the vicinity of the cooling water intake structure(s).

These may include historical data that are representative of the current operation of the facility and of biological conditions at the site; and

c. Documentation of the current impingement mortality and entrainment of all life stages of fish, shellfish, and any species protected under Federal , State, or Tribal Law (including threatened or endangered species) and an estimate of impingement mortality and entrainment to be used as the calculation baseline. The documentation may include historical data that are representative of the current operation of the facility and of biological conditions at the site. Impingement mortality and entrainment samples to support the calculations required must be collected during periods of representative operational flows for the cooling water intake structure and the flows associated with the samples must be documented.

B. The permittee shall comply with the following requirements:

1. At all times properly operate and maintain the intake equipment as demonstrated in the application material supporting the BTA determination.

2. Inform IEPA of any proposed changes to the cooling water intake structure or proposed changes to operations at the facility that affect impingement mortality and/or entrainment.

3. Debris collected on intake screens is prohibited from being discharged back to the canal. Debris does not include living fish or other living aquatic organisms.

4. Compliance Alternatives. The permittee must evaluate each of the following alternatives for establishing BTA for minimizing adverse environmental impacts at the facility due to operation of the intake structure:

a. Evaluate operational procedures and/or propose facility modifications to reduce the intake through-screen velocity to less than 0.5 ft/sec. The operational evaluation may consider modified circulating water pump operation; reduced flow associated with capacity utilization, recalculation or determination of actual total water withdrawal capacity. The evaluation report and any implementation plan for the operational changes and/ or facility modification shall be submitted to the Agency with the renewal application for this permit.

b. Complete a fish impingement and entrainment mortality minimization alternatives evaluation. The evaluation may include an assessment of modification of the traveling screens, consideration of a separate fish and debris return system and include time frames and cost analysis to implement these measures. The evaluation report and implementation plan for any operational changes and/ or facility modifications shall be submitted to the Agency with the renewal application for this permit.

C. All required reports shall be submitted to the Industrial Unit, Permit Section and Compliance Assurance Section at the address in Special Condition 14.

This special condition does not relieve the permittee of the responsibility of complying with any other laws, regulations, or judicial orders issued pursuant to Section 316(b) of the Clean Water Act.

SPECIAL CONDITION 19. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

SPECIAL CONDITION 20. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

SPECIAL CONDITION 21. If the permittee intends to request the continuation of the 316(a) alternative thermal limits in its next reissued NPDES permit, the permittee shall submit the information necessary to comply with 35 Ill. Adm. Code 106.1180 as part of the application for renewal of this permit.

SPECIAL CONDITION 22. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

Public Notice of Draft Permit

Public Notice Number LRL:15102801.docx is hereby given by Illinois EPA, Division of Water Pollution Control, Permit Section, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 (herein Agency) that a draft National Pollutant Discharge Elimination System (NPDES) Permit Number IL0005037 has been prepared under 40 CFR 124.6(d) for Exelon Generation Company, LLC, 4300 Winfield Road, Warrenville, Illinois 60555 for discharge into Mississippi River from the Quad Cities Nuclear Power Station, 22710 206 Avenue North, Cordova, Illinois 61242, Rock Island County. Quad Cities Station is an existing nuclear fueled steam electric generating facility located on the Illinois shore of Pool 14 of the Mississippi River at River Mile 506.5. The applicant is engaged in the operation of Quad Cities Generation Station which is an existing nuclear fueled steam electric generating facility (SIC 4911). The facility consists of two boiling water nuclear reactors, each producing 2,957 MW power for a total Station output of 5,914 MW. Quad Cities Station withdraws water from the Mississippi River for condenser cooling and various service water uses. Plant operation results in an average discharge of 1085 MGD of open cycle diffusers from outfall 001/002, 0.054 MGD of wastewater treatment plant from internal outfall B01, 0.056 MGD of radwaste treatment system blowdown from internal outfall A02 and 0.005 MGD of sanitary waste treatment plant from outfall 003.

The application, draft permit and other documents are available for inspection and may be copied at the Agency between 9:30 A.M. and 3:30 P.M. Monday through Friday. A Fact Sheet containing more detailed information is available at no charge. For further information, call the Public Notice Clerk at 217/782-0610.

Interested persons are invited to submit written comments on the draft permit to the Agency at the above address. The NPDES Permit and Joint Public Notice numbers must appear on each comment page. All comments received by the Agency not later than 30 days from the date of this publication shall be considered in making the final decision regarding permit issuance.

Any interested person may submit written request for a public hearing on the draft permit, stating their name and address, the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to these issues in the hearing. Such requests must be received by the Agency not later than 30 days from the date of this publication.

If written comments and/or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing.